

During a telephone conversation with Martha A. Gammill on 25 September 1997, a provisional election was made with traverse to prosecute the invention of Group 1, which is as follows: "Claims 1-21 and 38-39 in-part which are N-([3-(1R or S)-4-hydroxy-5,6-dihydro-2-oxo-6-(R or S)phenethyl-6-propyl-2H-pyran-3-yl]phenyl)-pyridine-2-sulfonamides wherein the 5-position of the pyridine ring represents hydrogen, -CF<sub>3</sub>, -NH<sub>2</sub>, -CN or any other disclosed substituent that is enabled. Claim 22 is readable thereon."

According to the Examiner, affirmation of this election must be made by applicant in responding to this Office action. Claims 23-37 have been withdrawn from further consideration by the Examiner under 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicants hereby affirm this election of Group 1, which includes claims 1-21 and 38-39 in-part, and withdraw the traverse. With the above amendments, Applicants have cancelled the non-elected subject matter, intending to claim it in a divisional application to be filed prior to the issuance of the present application.

#### CLAIM 22

The Examiner has stated that claim 22 has been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 22 is still in the present application at page 443, lines 21-25; however, it is already in independent form; i.e., it is not dependent on any previous claim. Applicants would gladly make any other changes to this claim if the Examiner feels it is necessary.

#### PRIOR ART SEARCH

As promised, the undersigned Examiner has expanded the compound species election involving the compound of claim 21, found on lines 19-20 of the specification, into Group 1 which, in the opinion of the undersigned Examiner, represents a generic concept.

After a thorough search, the only reference found was PCT/US95/05219, filed 4 May 1995, which is Applicants' own prior PCT application, corresponding to the present application. Therefore, according to the Examiner, prior art is not an issue. The Examiner states that if applicants' attorney cancels all non-elected subject matter and drafts a new set of claims corresponding to Group 1, this application will be allowed.

With the above amendments, Applicants have cancelled all claims, except claim 22,

as noted above, and have added new claims 40-43 which correspond approximately to Group 1. In these claims, Applicants have claimed the subject matter of Group 1 generically and specifically. Support for these claims is in the specification as filed, specifically in claims 20 (pages 431-432), 38 and 39 (pages 455-457), and in the specification as filed in Examples 262-263; 280, 283-284, 287-290, 314-315, 326-327, 331, 334, and 363-364. No new matter is added to the present application with these claims, and their entry is respectfully requested.

Reconsideration of this application as amended and its early allowance are respectfully requested.

Respectfully submitted,

Date: 27 March 1998

Martha A. Gammill

Martha A. Gammill, Attorney  
Registration No. 31,820  
Telephone: (616) 833-7829

Mtg. Address: Intellectual Property Legal Services, Pharmacia & Upjohn Company, Kalamazoo, MI 49001

Enclosures

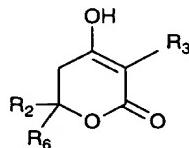
Attachment A: New Claims 40-43

ATTACHMENT A

40. The compound of the formula VI

5

T4030X



VI

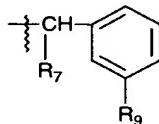
wherein R<sub>2</sub> is

- 10           a) H<sub>3</sub>C-CH<sub>2</sub>-; or  
              b) phenyl-(CH<sub>2</sub>)<sub>2</sub>;

wherein R<sub>3</sub> is the moiety of formula X

T4031X

15



X

wherein R<sub>6</sub> is

- a) H<sub>3</sub>C-(CH<sub>2</sub>)<sub>2</sub>-; or  
b) phenyl-(CH<sub>2</sub>)<sub>2</sub>;

20 wherein R<sub>7</sub> is H<sub>3</sub>C-CH<sub>2</sub>-;

wherein R<sub>9</sub> is -NHSO<sub>2</sub>-het;

wherein het is 2-pyridinyl substituted at the 5-position by zero (0) or one (1) R<sub>10</sub>;

wherein R<sub>10</sub> is

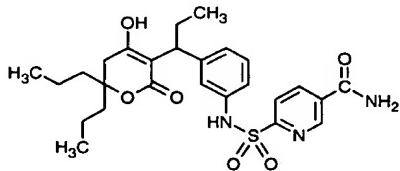
- a) -CN,  
b) -CF<sub>3</sub>,  
c) -NH<sub>2</sub>, or  
d) -CONH<sub>2</sub>;

or a pharmaceutically acceptable salt thereof.

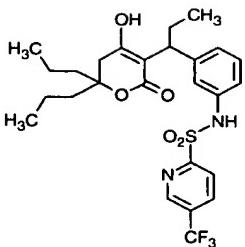
30      41.

The compound of claim 40 selected from the group consisting of:

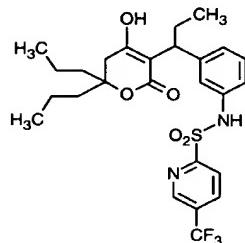
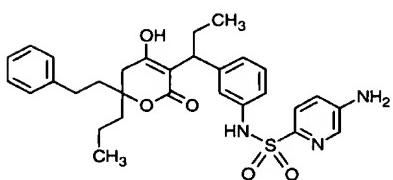
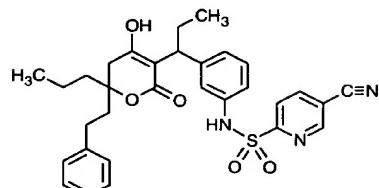
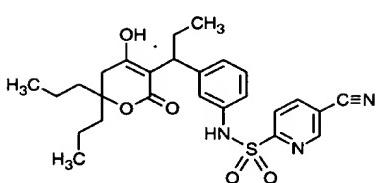
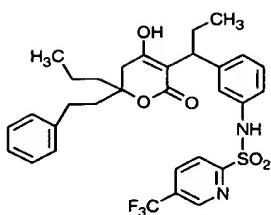
T4032X



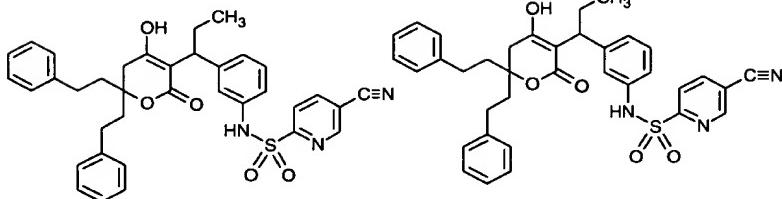
403



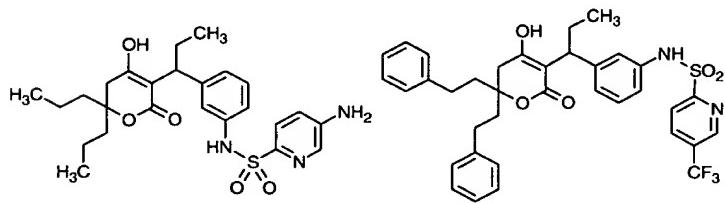
5



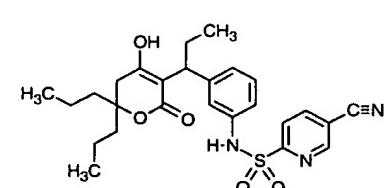
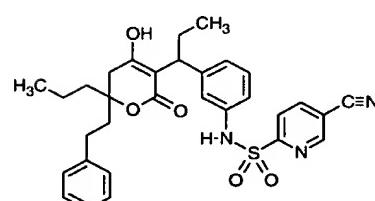
20



25



30



35

404

342.

The compound of claim 40 selected from the group consisting of:

- 5-Trifluoromethyl-N-[3-(R or S)-[1-[4-hydroxy-2-oxo-6,6-di-n-propyl-5,6-dihydro-2H-pyran-3-yl]-propyl]-phenyl]-2-pyridinesulfonamide;
- 5-Trifluoromethyl-N-[3-(R)-[1-[4-hydroxy-2-oxo-6,6-di-n-propyl-5,6-dihydro-2H-pyran-3-yl]-propyl]-phenyl]-2-pyridinesulfonamide; or (3R)-N-[3-[1-(5,6-Dihydro-4-hydroxy-2-oxo-6,6-dipropyl-2H-pyran-3-yl)propyl]phenyl]-5-(trifluoromethyl)-2-pyridinesulfonamide;
- 5-Trifluoromethyl-N-[3-(S)-[1-[4-hydroxy-2-oxo-6,6-di-n-propyl-5,6-dihydro-2H-pyran-3-yl]-propyl]-phenyl]-2-pyridinesulfonamide; or (3S)-N-[3-[1-(5,6-Dihydro-4-hydroxy-2-oxo-6,6-dipropyl-2H-pyran-3-yl)propyl]phenyl]-5-(trifluoromethyl)-2-pyridinesulfonamide;
- 5-Trifluoromethyl-N-[3(R or S)-[1-[5,6-dihydro-4-hydroxy-2-oxo-6(R or S)-(2-phenethyl)-6(R or S)-n-propyl-2H-pyran-3-yl]-propyl]-phenyl]-2-pyridine sulfonamide;
- 5-Trifluoromethyl-N-[3(R)-[1-[5,6-dihydro-4-hydroxy-2-oxo-6(R)-(2-phenethyl)-6(R)-n-propyl-2H-pyran-3-yl]-propyl]-phenyl]-2-pyridinesulfonamide; or (3R,6R)-N-[3-[1-(5,6-Dihydro-4-hydroxy-2-oxo-6-(2-phenylethyl)-6-propyl-2H-pyran-3-yl)propyl]phenyl]-5-(trifluoromethyl)-2-pyridinesulfonamide;
- 5-Trifluoromethyl-N-[3(R)-[1-[5,6-dihydro-4-hydroxy-2-oxo-6(S)-(2-phenethyl)-6(S)-n-propyl-2H-pyran-3-yl]-propyl]-phenyl]-2-pyridinesulfonamide; or (3R,6S)-N-[3-[1-(5,6-Dihydro-4-hydroxy-2-oxo-6-(2-phenylethyl)-6-propyl-2H-pyran-3-yl)propyl]phenyl]-5-(trifluoromethyl)-2-pyridinesulfonamide;
- 5-Trifluoromethyl-N-[3(S)-[1-[5,6-dihydro-4-hydroxy-2-oxo-6(R)-(2-phenethyl)-6(R)-n-propyl-2H-pyran-3-yl]-propyl]-phenyl]-2-pyridinesulfonamide; or (3S,6R)-N-[3-[1-[5,6-Dihydro-4-hydroxy-2-oxo-6-(2-phenylethyl)-6-propyl-2H-pyran-3-yl]propyl]phenyl]-5-(trifluoromethyl)-2-pyridinesulfonamide;
- 5-Trifluoromethyl-N-[3(S)-[1-[5,6-dihydro-4-hydroxy-2-oxo-6(S)-(2-phenethyl)-6(S)-n-propyl-2H-pyran-3-yl]-propyl]-phenyl]-2-pyridinesulfonamide; or (3S,6S)-N-[3-[1-[5,6-Dihydro-4-hydroxy-2-oxo-6-(2-phenylethyl)-6-propyl-2H-pyran-3-yl]propyl]phenyl]-5-(trifluoromethyl)-2-pyridinesulfonamide;
- 30 N-[3-[1-(S)-[5,6,-Dihydro-4-hydroxy-2-oxo-6-(2-phenylethyl)-6-propyl-2H-pyran-3-yl]propyl]phenyl]-5-(trifluoromethyl)-2-pyridinesulfonamide;
- (3R)-N-[3-[1-(5,6-Dihydro-4-hydroxy-2-oxo-6-propyl-6-phenethyl-2H-pyran-3-yl)propyl]phenyl]-5-(trifluoromethyl)-2-pyridinesulfonamide;
- N-[3-{1(R or S)-(4-Hydroxy-5,6-dihydro-2-oxo-6,6-dipropyl-2H-pyran-3-yl)-propyl}phenyl]-5-cyanopyridine-2-sulfonamide;

405

- N-[3-{1(*R*)-(4-Hydroxy-5,6-dihydro-2-oxo-6,6-dipropyl-2H-pyran-3-yl)-propyl}phenyl]-5-cyanopyridine-2-sulfonamide;
- N-[3-{1(*S*)-(4-Hydroxy-5,6-dihydro-2-oxo-6,6-dipropyl-2H-pyran-3-yl)-propyl}phenyl]-5-cyanopyridine-2-sulfonamide;
- 5 N-[3-{1(*R* or *S*)-(4-Hydroxy-5,6-dihydro-2-oxo-6(*R* or *S*)-phenethyl-6-propyl-2H-pyran-3-yl)propyl}phenyl]-5-cyanopyridine-2-sulfonamide;
- N-[3-{1(*R*)-(4-Hydroxy-5,6-dihydro-2-oxo-6(*R*)-phenethyl-6-propyl-2H-pyran-3-yl)propyl}phenyl]-5-cyanopyridine-2-sulfonamide;
- 10 N-[3-{1(*R*)-(4-Hydroxy-5,6-dihydro-2-oxo-6(*S*)-phenethyl-6-propyl-2H-pyran-3-yl)propyl}phenyl]-5-cyanopyridine-2-sulfonamide;
- N-[3-{1(*S*)-(4-Hydroxy-5,6-dihydro-2-oxo-6(*R*)-phenethyl-6-propyl-2H-pyran-3-yl)propyl}phenyl]-5-cyanopyridine-2-sulfonamide;
- 15 N-[3-{1(*S*)-(4-Hydroxy-5,6-dihydro-2-oxo-6(*S*)-phenethyl-6-propyl-2H-pyran-3-yl)propyl}phenyl]-5-cyanopyridine-2-sulfonamide;
- 5-Amino-N-[3(*R* or *S*)-(1-[5,6-dihydro-4-hydroxy-2-oxo-6(*R* or *S*)-(2-phenylethyl)-6-propyl-2H-pyran-3-yl]propyl)phenyl]-2-pyridinesulfonamide;
- 5-Amino-N-[3(*R* or *S*)-(1-[5,6-dihydro-4-hydroxy-2-oxo-6(*R* or *S*)-(2-phenylethyl)-6-propyl-2H-pyran-3-yl]propyl)phenyl]-2-pyridinesulfonamide;
- 20 5-Trifluoromethyl-N-[3-[1-[4-hydroxy-2-oxo-6,6-di-n-propyl-5,6-dihydro-2H-pyran-3-yl]-propyl]-phenyl]-2-pyridinesulfonamide;
- N-[3-{1-(4-Hydroxy-5,6-dihydro-2-oxo-6,6-bis(2-phenylethyl)-2H-pyran-3-yl)propyl}phenyl]-5-cyanopyridine-2-sulfonamide;
- N-[3(*R* or *S*)-(1-[6,6-Bis(2-phenylethyl)-5,6-dihydro-4-hydroxy-2-oxo-2H-pyran-3-yl]propyl)phenyl]-5-cyano-2-pyridinesulfonamide;
- 25 N-[3(*R* or *S*)-(1-[6,6-Bis(2-phenyl-ethyl)-5,6-dihydro-4-hydroxy-2-oxo-2H-pyran-3-yl]propyl)phenyl]-5-cyano-2-pyridinesulfonamide;
- N-[3-{1(*R* or *S*)-(4-Hydroxy-5,6-dihydro-2-oxo-6,6-dipropyl-2H-pyran-3-yl)-propyl}phenyl]-5-aminopyridine-2-sulfonamide;
- N-[3-{1(*S* or *R*)-(4-Hydroxy-5,6-dihydro-2-oxo-6,6-dipropyl-2H-pyran-3-yl)-propyl}phenyl]-5-aminopyridine-2-sulfonamide;
- 30 5-Trifluoromethyl-N-[3-(*R* or *S*)-[1-[4-hydroxy-2-oxo-6,6-di-phenethyl-5,6-dihydro-2H-pyran-3-yl]-propyl]-phenyl]-2-pyridinesulfonamide;
- 5-Trifluoromethyl-N-[3-(*R* or *S*)-[1-[4-hydroxy-2-oxo-6,6-di-phenethyl-5,6-dihydro-2H-pyran-3-yl]-propyl]-phenyl]-2-pyridinesulfonamide;
- 35 N-[3-{1-(4-Hydroxy-5,6-dihydro-2-oxo-6-phenethyl-6-propyl-2H-pyran-3-

yl)propyl]phenyl]-5-cyanopyridine-2-sulfonamide;

N-[3-{1-(4-Hydroxy-5,6-dihydro-2-oxo-6,6-dipropyl-2H-pyran-3-  
yl)propyl}phenyl]-5-cyanopyridine-2-sulfonamide; and

N-[3-{1-(4-Hydroxy-5,6-dihydro-2-oxo-6,6-dipropyl-2H-pyran-3-  
yl)propyl}phenyl]-5-carbamoylpyridine-2-sulfonamide.

*43.* The compound of claim *40* selected from the group consisting of:

(3R,6R)-N-[3-[1-(5,6-Dihydro-4-hydroxy-2-oxo-6-(2-phenylethyl)-6-propyl-2H-  
pyran-3-yl)propyl]phenyl]-5-(trifluoromethyl)-2-pyridinesulfonamide;

(3R,6S)-N-[3-[1-(5,6-Dihydro-4-hydroxy-2-oxo-6-(2-phenylethyl)-6-propyl-2H-  
pyran-3-yl)propyl]phenyl]-5-(trifluoromethyl)-2-pyridinesulfonamide;

(3S,6R)-N-[3-[1-[5,6,-Dihydro-4-hydroxy-2-oxo-6-(2-phenylethyl)-6-propyl-2H-  
pyran-3-yl]propyl]phenyl]-5-(trifluoromethyl)-2-pyridinesulfonamide;

(3S,6S)-N-[3-[1-[5,6-Dihydro-4-hydroxy-2-oxo-6-(2-phenylethyl)-6-propyl-2H-  
pyran-3-yl]propyl]phenyl]-5-(trifluoromethyl)-2-pyridinesulfonamide;

N-[3-[1-(S)-[5,6,-Dihydro-4-hydroxy-2-oxo-6-(2-phenylethyl)-6-propyl-2H-pyran-  
3-yl]propyl]phenyl]-5-(trifluoromethyl)-2-pyridinesulfonamide; and

(3R)-N-[3-[1-(5,6-Dihydro-4-hydroxy-2-oxo-6-propyl-6-phenethyl-2H-pyran-3-  
yl)propyl]phenyl]-5-(trifluoromethyl)-2-pyridinesulfonamide.